



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,172	05/23/2000	Paul Lapstun	NPX008US	9245

24011 7590 10/21/2003

SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

ABDULSELAM ABBAS I

ART UNIT	PAPER NUMBER
----------	--------------

2674

13

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,172

Applicant(s)

LAPSTUN ET AL.

Examiner

Abbas I Abdulsalam

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 126 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 126 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-65, 70-98 and 103-124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackley (USPN 6152370) in view of Teufel et al. (USPN 6243503) and Wright, Jr. (USPN 5704029).

Regarding claims 1, 9, 29, 37, 57 and 90, Ackley teaches a reader (50) constructed to read and decode collection symbols formed on surfaces, and includes a sensor (54) receiving a light reflected from the bar code and converts the received light into electrical signal. Specifically, Ackley discloses a receiver or converter (56) receiving the electric signal from the sensor (54) and converts it into a signal to be processed by a programmed computer or processor (60). See col. 5, lines 18-67. Ackley teaches a processor (60) determining which elements in the symbol (53) are resolved by identifying certain peaks and valleys in order that reliable data in the profile is distinguished. See col. 10, lines 3-11. Ackley also teaches that the processor determines if the profile is in-focus and if so, in step (108) the processor decodes the profile. See col. 8, lines 39-54 and Fig 5A. Further, Ackley discloses a decoding circuit (416) performing, distance determination (116), creating lost element matrix (120) as well as identifying and filling in decode matrix for unresolved elements. See col. 25, lines 33-43 and Fig. 5B. In addition, Ackley discloses the circuitry decoding the bar code in a way where a user must constantly move

Art Unit: 2674

the reader to place a given bar code within focus for the reader so as to read that bar code. See col. 3, lines 4-18. Moreover, Ackley teaches a processor with respect to data collection symbiology reader (50) reading data from any linear, stacked area, and other machine-readable symbiology. See Fig 1 and co. 5, lines 34-45. Ackley's disclosure includes a method of receiving light reflected from the symbol and producing an output signal that represents the shapes and spaces. Ackley's method also includes identifying a plurality of portions in the "wide feature signal" corresponding to the shapes and spaces.

Ackley does not disclose the "movement of data" defined as indicative of the sensing device's movement relative to the interface surface. Teufel on the other hand teaches a motion detector unit (202) for recording the given position of the data acquisition device (200) relative to the image plane (20) and photodiodes (229, 230) intended for detecting the movement of the data acquisition device. See col. 10, lines 13-19, 64-67, col. 11, lines 1-4, Fig. 17 (202), Fig. 18B and Fig. 10 (A-B).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ackley's method of decoding data collection symbols to adapt Teufel's motion detector (202) along with the use of photodiodes (229, 300). One would have been motivated in view of the suggestion in Teufel that the motion detector with photodiodes serve the same purpose and can be equivalently used to obtain the desired sensing device's movement relative to the interface surface. The use of motion detector and photodiodes helps function data acquisition device more effectively as taught by Teufel.

However, Ackley has been discussed above. However, Ackley does not teach the use of a "drawing field" disposed on the interface surface. Wright on the other hand teaches a computer program creating a set of field structures representing the electronic form, and the data representing the electronic form that can be sent to another computer for graphic display. See col. 3, lines 28-40. Specifically Wright discloses a computerized forms system (100) including a form engine (124), which includes field status records (310), draw field function (316) and a state (351), which determines field text state or numeric state. See Fig. 1 and Fig. 8.

Therefore, It would have been obvious to one having skill in the art at the time the invention was made to modify Ackley's system of coding and decoding to adapt Wright's form engine (124) including the fields. One would have been motivated in view of the suggestion in Wright that the form engine (124) as configured in Fig. 8 equivalently provides the desired drawing field. The use of fields defining the electronic form allows a bar code reader to function effectively as taught by Wright. (see col. 28, lines 31-36).

Regarding claims 2, 30, 60 and 93, Ackley teaches decoding procedure in a way where a user must constantly move the reader to place a given bar code. See col. 3, lines 4-18. Ackley also teaches a method of decoding unresolved profiles produced by the reader (50) including determining unit distance, or X dimension (116). Further, Ackley discloses the processor (60) identifying the center distances and determining the size of the resolved elements bordering the measured center distance. See Fig. 1, Fig. 5, and col. 23, lines 29-46.

Regarding claims 10, 18-19, 23, 46-47, 51, 80-81, 84, 114-115, 118 and 124, Teufel teaches a motion detector unit (22) along with processing unit (7) for recording the given

position of the data acquisition device (200). Teufel also discloses the use of photodiodes (229, 230) for detecting the movement of the data acquisition device. See Fig. 19.

Regarding claims 11-15, 20-21, 39-43, 48-49, 72-76, 82-83, 105-110 and 116-117, Teufel teaches that as the data acquisition device moves parallel with marked surface, a pattern of electric signals along with photodiodes (229', 229'') is produced, and such a pattern coupled with suitable data processing would enable one to determine the direction and speed of the motion of the reading device.

Regarding claims 16-17, 38, 44-45, 61-65, 77-79, 94-98 and 111-113, Ackley teaches that a processor (60) determines the type of symbol from which a given profile is generated and by so doing identifies the region. For example, Ackley shows the identification of large valley (the large bar) at the end of the profile next to a high peak (the quite zone). See col. 22, lines 23-32.

Regarding claims 24-25 and 52-53, Teufel teaches that the signals emitted by photodiodes are stored in memory unit (217).

Regarding claims 3-8, 22, 26-28 31-36, 50, 54-56 70-71, 85-89, 103-104 and 119-123, Wright teaches forms engine (124), which include a draw field function (316), which in turn includes a step of drawing value from data array (450). See Fig. 8 and Fig. 9a. Wright teaches the forms engine software that is written in Newton Script programming language. See col. 7, lines 63-67 and Fig. 9, (440, 444, 446).

Regarding claims 58-59 and 91-92, Wright teaches exemplary field data structure printed form and a set of exemplary field data structures for the form. See Fig. 2(a, b, c).

Art Unit: 2674

2. Claims 66-69, 99-102 and 125-126 are rejected under 35 U.S.C. 103(a) as being unpatentable (over Ackley in view of Teufel and Wright, Jr.) and in further view of Ito et al. (USPN 5612720).

Ackley as modified has been discussed above. However, Ackley does not teach identification of a user. Ito on the other hand teaches a coordinate indicating device enabling to output the device identifier stored in itself. For example, Ito teaches the pen identifier (116) to the electronic pen (101) that can be stored in a ROM (107). See col. 6, lines 66-67, col. 7, lines 1-7 and Fig. 1.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify Ackley's system of decoding to adapt Ito's method of device identification. One would have been motivated in view of the suggestion in Ito that the device identification equivalently provides the desired identification of a user though the device identifier. The use of device identification helps systems for processing information including classification of coding and decoding as taught by Ito.

Conclusion

3. The prior art made of record and not relied upon is considered to applicant's disclosure. The following arts are cited for further reference.

U.S. Pat. No. 6,628,314 to Hoyle

U.S. Pat. No. 6,606,479 to Cook et al.

Art Unit: 2674

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

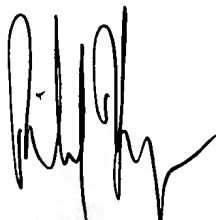
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Abbas Abdulsalam

Examiner

Art Unit 2674

September 30, 2003